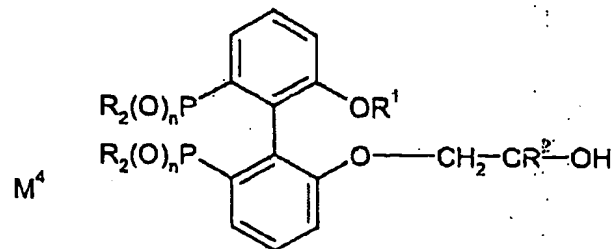
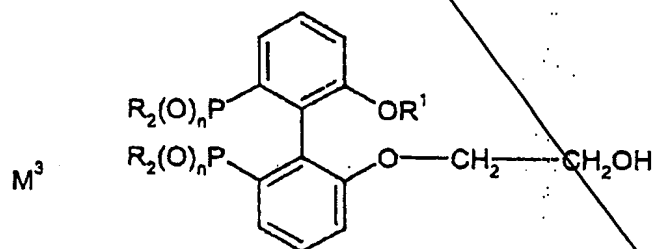
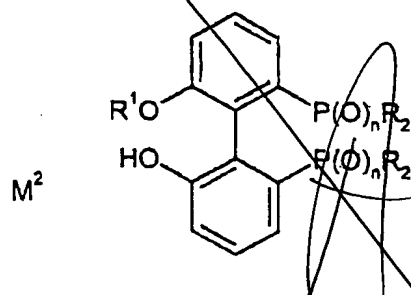
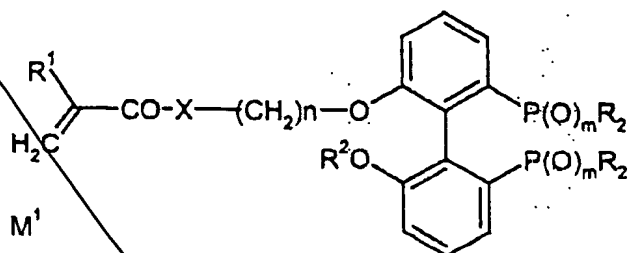


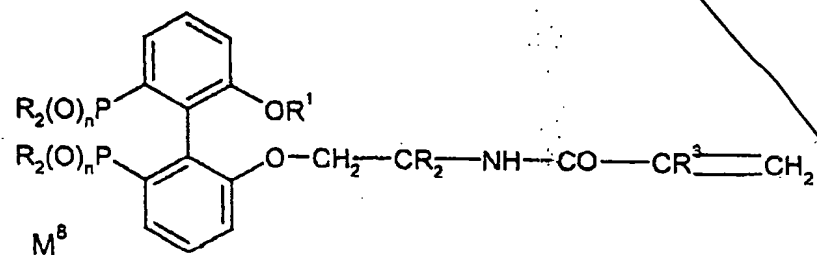
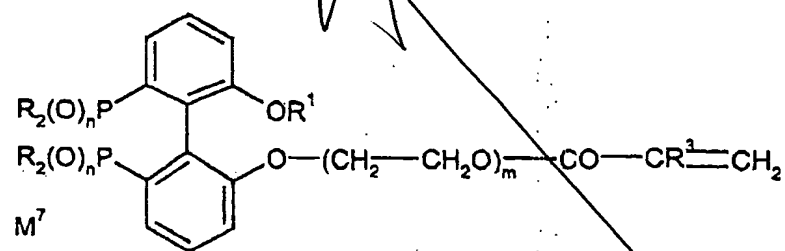
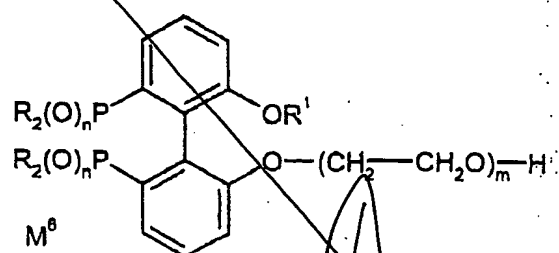
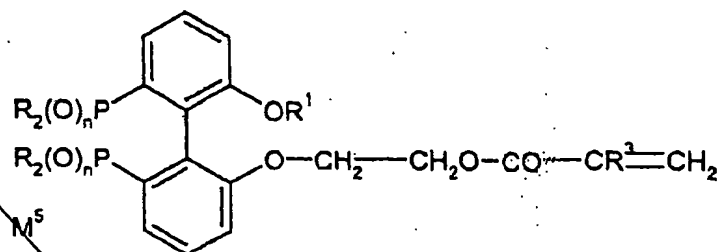
Patent claims

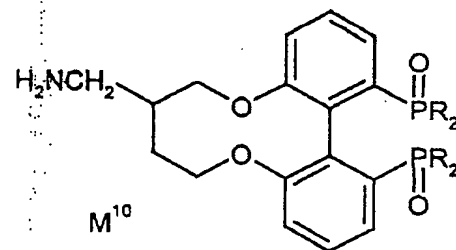
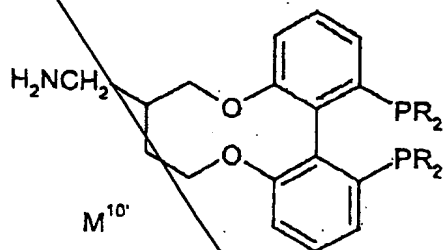
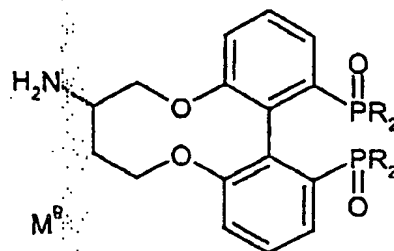
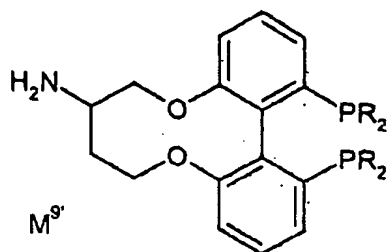
What is claimed is?

1. Process for the preparation of non-chiral or optically active alcohols in which a carbonyl compound is reacted with hydrogen in the presence of a catalyst, a base and optionally a diamine, characterized in that the catalyst used is an Ru(II) complex which contains both a support-bonded bisphosphine ligand and also a diamine ligand.
2. Process according to Claim 1, characterized in that the catalyst is formed in situ from a support-bonded precursor and a diamine.
3. Process according to Claim 1, characterized in that a catalyst is used which contains both a chirally uniform, support-bonded bisphosphine ligand and also a chirally uniform diamine ligand.
4. Process according to Claim 3, characterized in that an atropisomeric bisphosphine ligand is present in the catalyst.
5. Ru(II) complex catalyst, characterized in that the Ru complex contains a support-bonded bisphosphine ligand and a diamine ligand.
6. Ru(II) complex catalyst, characterized in that the Ru catalyst has been obtained by linking an inorganic support containing SH groups with a bisphosphine (derivative) capable of polymerization.
7. Compounds of the formulae $M^1, M^2, M^3, M^4, M^5, M^6, M^7, M^8, M^9, M^{9'}, M^{10}$ and $M^{10'}$,

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5

wherein independently of one another each

10

R is phenyl, 2- or 3- or 4-methylphenyl, 3,5-dimethylphenyl, 3,5-dimethyl-4-methoxyphenyl, 3,5-di-tert-butylphenyl or cyclohexyl, and

R¹ and R² are in each case, independently of one another, C₁- to C₈-(cyclo)alkyl and

15

R³ is H or CH₃, and

n is 1 or zero, and

m is 2-100.

20
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